FEATURES

- 48 touch-sensitive channel faders
- Touch & Spin mix control
- Fully integrated EAW Smaart analysis
- 3 x 12 system processor
- 48 digitally controlled mic preamps
- 16 x 8 Matrix Plus with individually selectable input sources
- Internal hard drive for unlimited snapshot/venue/preset storage
- Selected channel section - control of all channel parameters
- Customizable user banks and per-channel V-Pot controls

DESCRIPTION

The new UMX.96 digital console offers 24-bit, 96-kHz performance with expandable 56 x 44 analog I/O, 3 x 12 integrated system processing, and the first full integration of the Smaart measurement and analysis platform.

The master section combines a 15-inch touch-sensitive LCD display with a tactically dynamic rotary encoder that is able to change its “feel” depending on the specific parameter selected via the touch screen. The master section also incorporates 8 Penny & Giles VCA faders that bring the VCA masters or other desired channels to the center of the mixer for convenient access.

The channel section of the UMX.96 includes 48 Penny & Giles touch-sensitive faders arranged in 2 stacked rows of 24. These provide dedicated control of all 48 input channels simultaneously or can be assigned in master groups of 8 to specific sections. Tri-color Channel Assign buttons provide at-a-glance indication of current channel assign functions for Mute Groups, VCAs, Aux/Groups, internal effects, and more, with each group of 8 channels offering an associated scribble strip that displays the custom channel name and V-Pot (virtual potentiometer) information.

The 3 x 12 system processor offers EQ, crossover, delay and limiter algorithms, allowing multi-way system alignment, audio distribution and zoning directly from the mixer. Recallable presets allow the user to optimize crossover, EQ and alignment settings. Powerful internal hard drive memory provides virtually unlimited snapshot, venue, and preset storage.

The Smaart measurement capabilities provide instant system measurement and calibration. When selected, an input or output feeds Smaart, which in turn provides measurement data on the EQ screen in order to show the instant effects of the EQ on the signal. The user can choose to view this information in RTA or Spectrograph form. An LCD SPL meter provides constant dB-SPL display from the supplied RTA-420 measurement mic.

The standard UMX.96 configuration includes 48 digitally controlled mic preamps with balanced TRS send and return inserts and a TRS direct output. Each input channel has a gate, compressor, and 4-band EQ with dedicated HPF and LPF, while outputs feed a 4-band EQ, compressor/limiter, and 31-band graphic EQ which can also display Smaart information. Eight stereo line inputs on dual XLR connectors feed a stereo compressor and EQ.

The 16 x 8 Matrix Plus facilitates digital patching of any input or bus signal into the matrix. The system processor outputs are typically fed by the Left, Right and Center outputs, but these offer flexible routing of any output signal to any of the 12 XLR outputs.

The modular design of the UMX.96 has been conceived with easy field serviceability in mind, and the console’s external power supply offers standard redundant operation.

Specifications on page 2

DIGITAL CONSOLE

INPUT POWER
1000W, 90-264V AC, 47-63 Hz
(dual redundant standard)

SAMPLE RATES
44.1k, 48k, 88.2k, 96k

FADERS
100mm motorized optical P & G
48 input + 8 VCA + 3 LRC + 1 selected channel
1024 steps, - inf to + 10dB

LATENCY
3.1ms, speaker processor bypassed
3.6ms, speaker processor engaged
(both analog mic in to analog main out)

DSP RESOLUTION
32 and 40-bit floating point

FREQUENCY RESPONSE
20Hz -20kHz, +/-0.5dB

THD + N
<0.004%, mic in to main out @ 1kHz
typical use: input = -15 dBu; mic gain = +31 dB

DYNAMIC RANGE
DA: 110 dB, main out @ 96kHz
DA: 114 dB main out @ 48kHz
AD+DA: 105 dB, mic in to main out @ 96kHz
AD+DA: 109 dB, mic in to main out @ 48kHz
(both up to +45 dB mic gain)

VOLTAGE GAIN
89 dB, mic in to main out

RESIDUAL OUTPUT NOISE
-90 dBu, 20Hz - 20kHz
(all inputs muted)

PHANTOM POWER
+48V, digitally controlled on individual channels

MAX INPUT LEVEL
+30 dBu, pad in

PAD
23 dB, digitally controlled

MIC PRE GAIN
+15 to +70 dB, 1 dB steps, pad out
-8 to +47 dB, 1 dB steps, pad in
(both digitally controlled)

INPUT IMPEDANCE
1.5k Ohm, mic in, pad out
3.1k Ohm, mic in, pad engaged
10k Ohm, inserts, returns, and stereo inputs

EIN
-130 dBu, 150 Ohm source, pad out
-127 dBu, any input impedance, pad in

DIMMENSIONS